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PETER J. OSTROSKY
STATE FIRE MARSHAL

MEMORANDUM

To: Heads of Fire Departments
From: Peter J. Ostroskey, State Fire Marshal
Date: November 28, 2017
Re: Revisions to 527 CMR 1.00: Massachusetts Comprehensive Fire Safety Code (Effective January 1, 2018) and related training opportunities and new code materials

The Board of Fire Prevention recently promulgated revisions to 527 CMR 1.00, the Massachusetts Comprehensive Fire Safety Code which is largely based upon the 2012 Edition of NFPA-1. The revisions, in large part, update the code by adopting the 2015 Edition of NFPA-1 with amendments unique to Massachusetts. The revisions will go into effect on January 1, 2018.

This memorandum is a brief summary of the key changes between the current 527 CMR 1.00 (based on the 2012 Edition of NFPA 1) and the revised code (based on the 2015 Edition of NFPA 1), and provides information related to code update training, new code books and standards, and other related materials.

Key revisions to MA amendments include:

- **The adoption of Chapter 26: *Laboratories Using Chemicals* (Extracted from NFPA 45)**

The adoption of Chapter 26 provides more specificity and clarification relative to hazardous material use and operations for laboratories. The chapter references NFPA 45 which includes fire safety standards for use and handling of chemicals, including related fire safety apparatus and equipment. The 2012 Edition (chapters 60 through 75_ applied broadly to all types of facilities, including laboratories. Now laboratories are covered in chapter 26 with more particularity and clarity and will prove more useful to the end users.

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- **Addition of a certificate of registration for cleaning and inspection of cooking systems (1.13.8.3)**

The requirement of a certificate of registration for commercial hood cleaning companies is included in the MA amendments to NFPA 1 following field reports of substandard work. Certificates exist for individual hood cleaners, but repeat instances of non-compliant cleaning were noted from certain companies. By including the certificate of registration for companies, responsibility for compliant cleaning is appropriately distributed to both the employee and the employer.

- **Added qualifications for welding, cutting, and other hot work (41.7) (Note: The provisions of 41.7.1 requiring permit holders to provide documentation that he or she has successfully completed training approved by the State Fire Marshal has an effective date of July 1, 2018.**

This enhanced provision is the result of a tragic fatal fire involving hot work operations. In the aftermath of this event it was concluded that enhanced fire safety training was needed for those individuals who oversee/conduct this activity.

Key revisions to the 2015 edition of NFPA 1 that were adopted by MA include:

- **Updates of all extracts through the Annual 2014 NFPA revision cycle**
Various technical updates to the NFPA standards were incorporated into the 2015 edition of NFPA 1. These changes have been approved on a national level and have undergone the NFPA code development cycle which includes review by a cross-representative technical committee, published draft, public comment period, reevaluation by a technical committee, and final publication. Additionally, the BFPF code committees reviewed and accepted these revisions through the 2015 edition code review process. By accepting these revisions through the adoption of the 2015 edition of NFPA 1, Massachusetts is maintaining safety standards proposed, reviewed, and promulgated on a national level.
- **Revisions to NFPA 654 extracts for dust explosion prevention (Chapter 40)**
NFPA 654 was updated to include more specificity with regards to cleaning and storage of combustible dust based upon the specific types of duct cleaning and storage containers and features several specific methods to assess a facility and/or operations and determine safe cleaning methods and frequency. Although such provisions have been in the code, the amended provisions provide more specificity and clarity for the end users.
- **Expanded ammonia refrigeration system maintenance and testing requirements (53.3)**
New Requirements are included in the revised code and incorporate already existing industry standards such as ASHRAE and ANSI, already used throughout the industry.
- **New provisions for alcohol-based hand rub dispensers (60.5.2)**
Due to the increase in the use of alcohol-based hand rub dispensers and the fire risk associated with a suspended hazardous material container, additional requirements

from NFPA 101 were extracted into NFPA 1. Where dispensers are mostly frequently installed such as hospitals and nursing homes, the NFPA 101 standard has been a requirement for a while in order to acquire industry certification or necessary for various government approvals.

- **Revisions to aerosol product classifications from NFPA 30B (61.1.3)**

The 2012 code included aerosol product standards for a wide range of aerosol products that present hazards. However, such standards were impractical for newer and less hazardous categories for some spray products in plastic containers. The NFPA-1 (2015), includes NFPA 30B, requirements that apply to such products with more particularity, often resulting in relaxed requirements.

- **New requirements for cleaning and purging gas piping systems from NFPA 55 (63.3.1.19)**

Extracts from NFPA 55 are included in NFPA 1 2015 Edition to regulate when and how to clean and purge gas piping systems and establish frequency of required cleaning and purging of gas lines and also insure a minimum quality of cleaning. NFPA 55 is the national standard for compressed gasses and is used throughout the industry as a “best practice”.

- **New provisions for cooking oil storage tank systems in commercial kitchens in NFPA 30 (66.19.7)**

Extracts from NFPA 30 are included in the revised code for cooking oil storage tank systems in commercial kitchens. The 2012 version included such provisions in the general and often more restrictive manner relative to combustible liquids. These provisions are more specific and address hazards particular to cooking oil, rather than combustible liquids in general.

New Code Training:

- DFS has developed training activity in coordination with NFPA, to review all the significant changes between the 2012 and 2015 Editions as well as the changes in the MA amendments. Registration is currently open in the DFS Learning Management System (LMS) for the following dates and locations:

December 1, 2017 – Springfield, MA
December 12, 2017 – Auburn, MA
December 13, 2017 – Berkshire County, MA (Dalton)
December 14, 2017 – Bourne, MA
December 19, 2017 Quincy, MA (NFPA HQ)
December 20, 2017 Stow, MA
January 4, 2018 Essex County, MA (Topsfield)
January 23, 2018 Worcester, MA
January 29, 2018 Fall River, MA

- Please check the LMS in the coming weeks for additional training opportunities being

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offered statewide throughout the winter and early spring. In addition, separate training packages are under development on the provisions of Chapter 41, Hot Work to meet the needs of both the fire service and the regulated community. (see aforementioned provisions of 527 CMR 1.00: 41.7.1)

Accessing the new editions of the code, amendments, and other materials:

Each department who attends training on the revised code will be provided a copy of the 2015 Edition of NFPA 1 and the Massachusetts Amendments at no cost. For those who wish to secure additional printed copies of the revised code, including the 2015 Edition of NFPA 1 and Massachusetts Amendments, they are available for purchase at the Secretary of State's Office.

The Massachusetts amendments to NFPA 1 are available for free viewing on the DFS web site at <http://www.mass.gov/eopss/agencies/dfs/osfm/fire-prev/527-cmr-index.html>. The NFPA also provides free access for "view only" purposes to the 2015 Edition of NFPA 1 at <http://www.nfpa.org/1> and to all the related NFPA reference documents at <http://www.nfpa.org>.

Many fire departments may already have the NFPA full subscription service that provides viewing and printing access to all NFPA codes and standards. If your department does not currently have the subscription, NFPA is also offering the "National Fire Codes 2015 Archive PDF" CD which includes the 2015 Edition of NFPA 1 and corresponding NFPA referenced standards at a reduced cost to the Massachusetts Fire Service. Unlike the free access version, this CD version is searchable and may be used for copy, paste, and cut purposes. If your department is interested in this one-time purchase product, please contact NFPA Customer Support directly at (508) 895-8300.